

**ABSTRACT**

Cellular wireless network structure and operations service high data rate forward link transmissions for a mobile station (MS). A base station controller (BSC) determines an active set of base stations (BTSs) for servicing the MS. The BSC receives packetized data from a data network and places the data in a centralized buffer (C-RLP). The BTSs each support a distributed buffer (D-RLP). The BSC downloads a plurality of blocks of data from the C-RLP buffer to each of the D-RLP buffers in the BTSs. A serving BTS of the active set of BTSs transmits forward link data to the MS at any one time. Upon a successful receipt of a block of data, the MS transmits a confirmation to the serving BTS that it received a particular block of data. The serving BTS detects that it requires D-RLP refilling and the BSC downloads a next plurality of blocks of data to each BTS of the active set of BTSs.